CLAIMS

1. A method of manufacturing a weight-saved gypsum board in which pores with a predetermined size are distributed in a gypsum core, comprising the steps of:

blowing air into a foaming agent to produce foams;

mixing the foams into a kneaded material that contains calcined gypsum and water to obtain foamed gypsum slurry;

pouring the foamed gypsum slurry into a space between upper and lower base papers for gypsum board;

shaping the base papers and the foamed gypsum slurry into a board shape;

roughly cutting off and subsequently drying the board-shaped one; and

cutting off the dried and shaped one into a product dimension; wherein

the method further comprises the step of preliminarily adding a pore size adjusting agent for adjusting sizes of foams distributed in the foamed gypsum slurry to one of a stock solution of the foaming agent and a mixture of a stock solution of the foaming agent and water to obtain the foaming agent for producing foams with desired sizes.

2. The method of manufacturing a weight-saved gypsum board as claimed in claim 1, wherein the pore size adjusting agent contains at least one substance selected from the group consisting of agents for increasing sizes of the foams in the foamed gypsum slurry and agents for decreasing sizes of the foams in the foamed gypsum slurry.

3. The method of manufacturing a weight-saved gypsum board as claimed in claim 2, wherein the agent for

increasing sizes of the foams in the foamed gypsum slurry contains at least one substance selected from the group consisting of water-soluble acidic substances, strong acids, and water-soluble strong alkaline substances.

4. The method of manufacturing a weight-saved gypsum board as claimed in claim 2, wherein the agent for increasing sizes of the foams in the foamed gypsum slurry contains at least one substance selected from the group consisting of aluminum sulfate, aluminum potassium sulfate, aluminum ammonium sulfate, ferric sulfate, polyferric sulfate, sulfuric acid, sulfamic acid, sodium hydroxide, and potassium hydroxide.

5. The method of manufacturing a weight-saved gypsum board as claimed in claim 2, wherein the agent for decreasing sizes of the foams in the foamed gypsum slurry contains at least one substance selected from the group consisting of sulfosuccinate-type surface active agents, sarcosinate-type surface active agents, alkylbenzene sulfonate-type surface active agents, alkane sulfonate-type surface active agents, and alkylbetaine-type surface active agents.

6. The method of manufacturing a weight-saved gypsum board as claimed in claim 1, wherein a content of the pore size adjusting agent in the foaming agent is 0.00001 parts by weight through 0.005 parts by weight per 100 parts by weight of the calcined gypsum.